

## Patent Claims

1. A coupling apparatus for data buses having
  - a first connecting device (11) for a first data bus (F1),
  - a second connecting device (12) for a second data bus (F2), which is not the same as the first, and
  - a data processing device (13, 15), which is connected to the first and the second connecting device (11, 12) in order to allow data to be interchanged between the data buses (F1, F2),characterized by
  - a third connecting device (14), which is likewise connected to the data processing device (13, 15), for a third data bus (P), which is not the same as the first and second data buses, so that data can be interchanged between the three data buses (F1, F2, P).
2. The coupling apparatus as claimed in claim 1, which is configurable.
3. The coupling apparatus as claimed in claim 2, which can be configured in such a way that the data transfer between two or three of the data buses (F1, F2, P) can be controlled as a function of the semantics of the data to be transmitted.
4. The coupling apparatus as claimed in one of the preceding claims, with the first data bus (F1) being a Profibus.
5. The coupling apparatus as claimed in one of the preceding claims, with the second data bus (F2) being an AS-i bus.
6. The coupling apparatus as claimed in one of the preceding claims, in which input/output modules (I3, O3) can be connected to the third data bus (P) and can be linked to the first and/or the second data bus with the aid of the coupling apparatus (1).

7. The coupling apparatus as claimed in one of the preceding claims, which has a monitor (16) with a configuration capability.